FEASIBILITY STUDY FOR A SECONDARY ACCESS TO THE TOWN OF EVANSVILLE

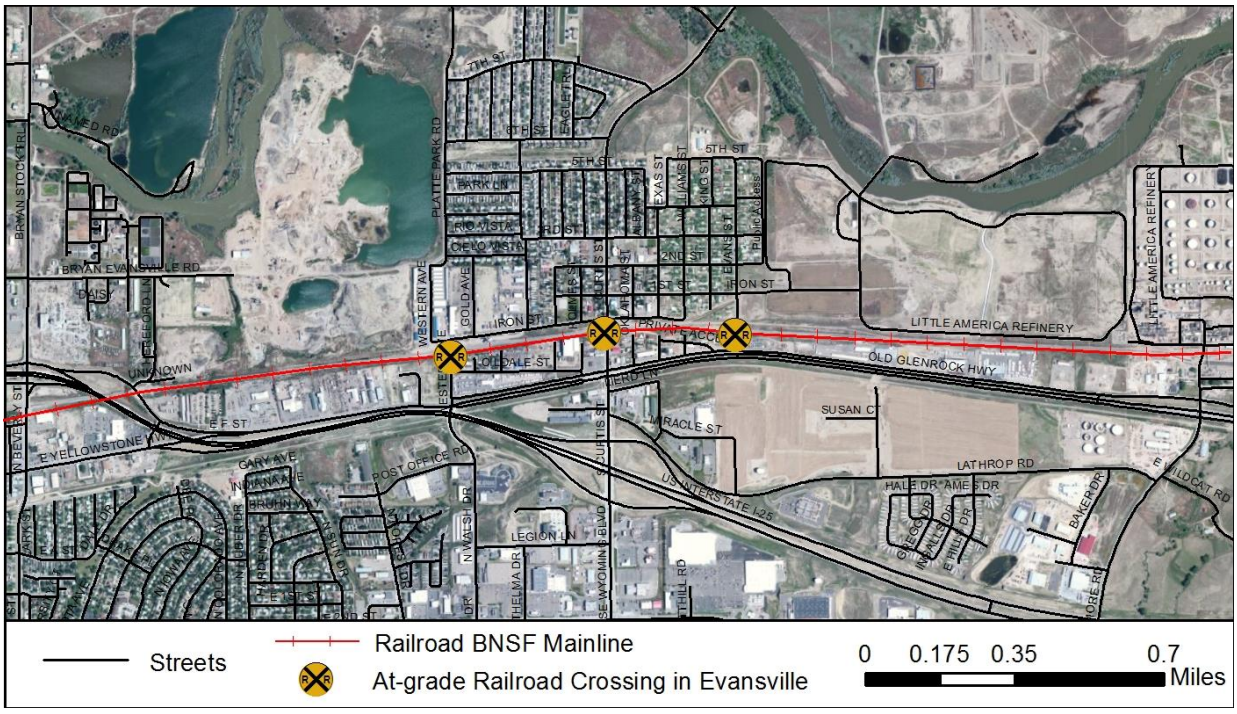
EVANSVILLE, WY

NOVEMBER 2014

KLJ

Introduction

Traveling in and out of the Town of Evansville has become more challenging as the community has grown and the number of trains on the Burlington Northern Santa Fe (BNSF) mainline that separates Evansville from neighboring Casper have increased. The forecasts that train traffic, particularly crude oil unit trains, will continue to rise have many concerned that access to the community will become even more challenging. Beyond being a daily inconvenience, it is a growing safety concern from an emergency response standpoint when Evansville residents have to be transported to an area hospital, or fire crews must respond to an incident south of the railroad tracks. The fact that a disabled train can block the streets for an extended period of time, or a derailed train can trap Evansville residents, has community leaders concerned about the current and future barriers to general and emergency traffic these trains represent. The Town Council believes it was imperative to establish one or more secondary means of access to Evansville that cannot be blocked by train traffic, and commissioned a study to identify possible access routes and determine which are most feasible.



Background

In 2005, the Town of Evansville commissioned the writing of a Community Development and Road Plan. The Plan provided an overview of Evansville at that time and outline how the community may change. Recommendations on where the community should grow, and the most appropriate areas for residential, commercial, and industrial growth were presented. In addition, the Plan identified underdeveloped areas within the existing town that could transition into more unified residential or commercial sectors. The Plan identified several proposed routes that provide options for secondary means of access to the town.

The Town of Evansville has experienced a significant level of growth in the past five years. Over 275 new homes have been built in the community during that time, and additional homes are currently being constructed in an improved 100 lot subdivision in the same area. The new families that will live in these 375 homes will generate an estimated 3,375 vehicle trips per day. This compounds the level of traffic already generated in this town of 2,500 people. Traffic counts taken in 2011 reflect daily traffic volumes into and out-of Evansville of approximately 10,000 vehicle trips per day.

At the present time there are only three access points into Evansville and these are all at grade crossings of the BNSF mainline that serves the Casper area. Curtis Street is the principle access to the community and handled 6,200 vehicles on a typical day in 2011. During the same time period, Evans Street which is 1,620 feet east of Curtis, carried 880 vehicles on a typical day. Western Avenue is the third access to Evansville, carried 2,900 vehicles per day in 2011, and is located 1,950 feet west of Curtis Street.

On average, there are eight, 100 car trains passing through Evansville per day. These trains are up to 5,780 feet in length (1.1 miles), including the locomotives. At a speed of 15 miles per hour, a train of that length takes from six to seven minutes to pass an individual crossing. With eight trains per day, one of more of the entrances to Evansville are blocked for 50 to 55 minutes per day. Given that the east and west entrances into Evansville are only 3,600 feet apart, all three of the access roads can be blocked simultaneously by a typical train that pass through Evansville.

The Study

The Evansville Town Council hired Kadrmas, Lee & Jackson (KLJ) in June of 2014 to conduct the Secondary Access Feasibility Study. The study involved the following steps:

1) Conduct a kick off meeting with City officials and key staff members to review the objectives of the study, gain some background on the issues, and finalize the tasks to be completed;
2) Perform field and aerial image assessments of the areas surrounding Evansville where secondary access routes are possible;
3) Meet with property owners or representatives of tracts of land where alternate routes are possible;
4) Prepare maps of the alternatives. Six were initially envisioned and nine were ultimately identified;
5) Develop a list of the criteria to be considered when evaluating the merits of each alternative;
6) Prepare a matrix that outlines the results of the assessment of each route;
7) Meet with the oversight committee to review the alternatives, and the results of the assessment, then select the top 2 alternatives;
8) Develop detailed descriptions, maps and cost estimates for the top alternatives;
9) Present ideas for improving the existing at grade crossings;
10) Outline the environmental review steps that will be required to gain approval of a road/bridge project prior to construction;
11) Present a final report for Town Council approval that outlines the purpose of the study, the findings and recommendations, and the actions that will need to take place to upgrade the existing access streets or construct new routes. The report will conclude with the identification of additional tasks that must be completed before one or more of the alternatives can be established.

At the kick off meeting, comments were made about the inconvenience of waiting for trains. A more extensive discussion took place about the risk that exists both for residents who may need medical attention being trapped by a train blocking the tracks for a period of time and individuals and property

owners in the part of Evansville south of the BNSF mainline who will be without emergency services if the emergency response crews are unable to get out. Observations were made on the alternatives that may exist for bridging the North Platte River and the limited options that exist for exiting the town to the west.

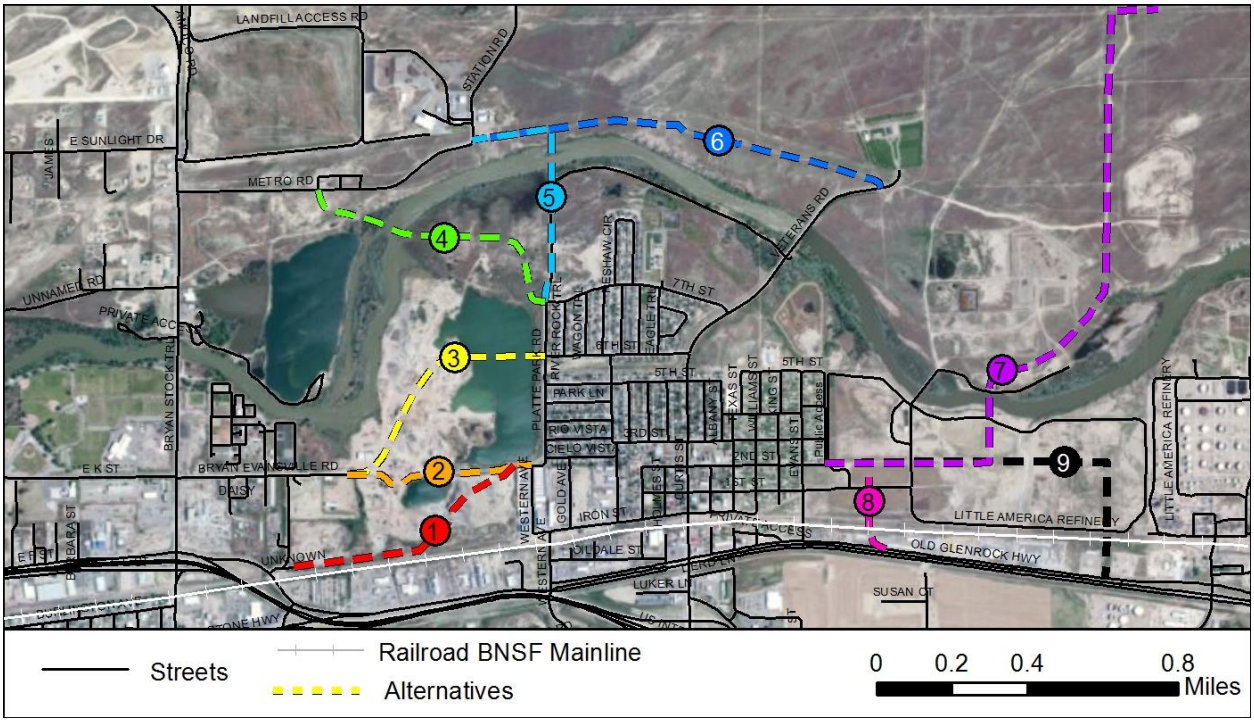
Field assessments and conversations with the property owners who held the large tracts of land east and west of Evansville resulted in the identification of seven (7) different routes or alternates in those two directions that could be considered. The remaining two (2) alternatives involved creating a connection to Metro Road in Casper via a new bridge over the North Platte River at the north end of Platte Park Road, or the existing Oregon Trail State Veterans Cemetery Bridge. The following section provides an overview of each of the alternatives identified.

In arriving at the considerations to take into account when rating the various alternatives, cost was a primary factor. In addition, having options that will not be compromised by an incident involving a train, and a short timeline was important. Though safety for Evansville residents, workers, customers, and property owners was the impetus for the study, an alternative that will also support community growth was considered to be of value.

To lessen the disruption caused by trains at the crossings, an examination of the existing railroad crossings at Evans Street, Curtis Street, and Western Avenue was conducted. Though the crossings were upgraded by BNSF in recent years, further changes that can make it quicker to cross the tracks without increasing the safety risk have been identified.

The final study task is to outline permitting and environmental considerations that may come into play. A number of the alternatives involve active and abandoned industrial sites, while others cross property within the North Platte River floodplain and may affect wetlands. The Town of Evansville must gain a clear understanding of the steps that will be required to secure the environmental clearances needed to construct one or more of the preferred alternatives.

Secondary Access Alternatives



Based on field assessments, discussions with representatives of the Town of Evansville, and the owners of principle properties west and east of the community that could provide a secondary access to Evansville, the following nine (9) alternatives from west to east were identified.

Alternate 1 – Knife River South

The first crossing of the BNSF mainline west of Evansville is at Hereford Lane. The westbound Yellowstone Highway to the Bryan Stock Trail connector crosses the BNSF line. It is possible to access the connector from the north or east without crossing the rail line, permitting direct access to Bryan Stock Trail, Beverly Street, I-25 and F Street even if a train is present. The preferred alignment for this alternative is across the south 80 feet of Lots 15 & 16, Packing Plant Addition and the southernmost portion of the Knife River tract, terminating at the Bryan Evansville Road intersection with Western Avenue. The Alternative 1 route is approximately 0.75 miles in length and involves the crossing of one drainageway where a 96" culvert will be required. A 60 foot long pipe or box of similar capacity will need to be installed under the proposed roadway at an estimated cost of $72,000. Two sanitary sewer lines need to be crossed which may affect the cut and fill options. The cost of a 40' road is estimated at $200.00 per lineal foot for a total estimated cost of construction for this alternative of $864,000.

Alternate 2 – Bryan-Evansville Road

The Bryan-Evansville Road is the primary means of access for the Knife River mining site and processing plants. Knife River employees, drivers, and their customers access the plant from both Casper and Evansville via the Bryan-Evansville Road. Using the current road for a secondary Evansville access is not workable unless a new alignment is established or the plant configuration changes. This route could be used for emergencies with minimal modifications. A substantial change in the road grade will require modifications to the 36" sanitary sewer main which lies beneath the road and serves Evansville and east Casper. A 0.50 mile extension of the Bryan Stock - Evansville Road, at $200.00 per foot will need to be constructed to connect Western Avenue in Evansville to the current end of pavement on the west side of the Knife River tract. The total estimated cost of construction for this alternative is $528,000.

Alternate 3 - Knife River North

The mining operation managed by Knife River has changed significantly over the years. Future fill and excavation operations will alter the appearance and character of the operation. Long term, the east pond may be split into two ponds by an east/west land bridge created through future dredging operations in the pond. A major street that would connect to Platte Park Road between 5th Street and 6th street east of the pond could be another access to the community from Bryan Stock Trail via the Bryan-Evansville Road. This could create an appealing approach to the newest part of the community. Following this route from Platte Park Road to the west Knife River property would require the creation of a 1,000 foot land bridge, and a 0.47 mile road. The total estimated cost of construction for this alternative is $202,481 plus the cost of creating the land bridge.

Alternate 4 – Knife River Bridge

Four different alternatives being considered involve a bridge across the North Platte River. The western most bridge will involve Knife River and City of Casper property. The bridge will need to span a distance of approximately 430 feet, and will cost an estimated $3,000,000. The bridge will have a low profile with the east end being in the floodplain and west end approximately 10 feet above the high water mark. The roadway that will connect the bridge to Metro Road will climb approximately 65 feet over a distance of 750 feet, representing a grade of over 8%. A total of 2,400 feet or 70% of the 0.67 miles of roadway needed to access the bridge will be in the 100 year floodplain and may require a significant amount of fill. The total estimated cost of construction for this alternative is $3,707,520.

Alternate 5 – Platte Park Road Bridge

Platte Park Road runs along the western boundary of Evansville. A bridge across the river that follows this alignment would involve a span of approximately 335 feet. The bluff on the north side of the river is 25 feet above the high water mark. Given that the maximum allowed grade for a bridge deck is 3%, the bridge could be as long as 760 feet to achieve that height. The bridge can be shortened to a length of approximately 400 feet if 14 feet of material is removed from the bluff. A 400 foot bridge will cost an estimated $3,500,000. The 1,100 feet of roadway needed to connect the north end of the bridge with Metro Road will cross property owned by the City of Casper. Platte Park Road is unpaved from 7th Street to the river, a distance of 1,800 feet. As a result, the Platte Park Road bridge alternative will require the construction of 0.57 miles of roadway. The initial or preliminary construction cost estimate for this alternative is $4,080,000.

Alternate 6 – Veterans Administration Bridge

Curtis Street, the principle means of access to the community, extends from the south City limits north to 5th Street. At 5th Street the road becomes “Veterans Road” and extends north to the existing bridge crossing the North Platte River and on to the Oregon Trail State Veterans Cemetery. Veterans Road is owned by the Wyoming Veterans Commission who has full responsibility for the maintenance, upgrades and repairs of the bridge and section of road to the north of the bridge that leads to the Cemetery. The Wyoming Military Department has entered into a Memorandum of Agreement with the Town of Evansville for the repair, maintenance, and management of that portion of Veterans Road south of the bridge and north of 5th Street, including snow removal, mowing ditches and managing traffic, parking and access.

The Memorandum of Agreement states that any new points of access to Veterans Road must be approved in writing by the Wyoming Military Department following a written request by the Town of Evansville. Should Veterans Road serve as a secondary means of access to the Town, a 1.1 mile connecting road will have to be constructed across City of Casper and State of Wyoming property from Veterans Road to Metro Road near the Casper Solid Waste Facility. The Wyoming Military Department would have to approve the joining of the connecting road and Veterans Road before it can be built. The current Memorandum of Agreement does not address the factors or objectives to be considered by the Wyoming Military Department in determining whether or not to grant additional points of access. The total estimated cost of construction for this alternative is $1,161,600.

Alternate 7 – 2005 Community Development Plan and Road Plan

One of the objectives of the 2005 Community Development Plan and Road Plan was to identify areas considered suitable for residential, commercial and industrial expansion. Several of the future growth areas identified were north of the North Platte River and east of Lathrop Road along the north side of I-25. Annexations and the extension of roads and utilities will be required to encourage the development of these areas. In addition, the plan identified underdeveloped areas within the community that can help support the growth and betterment of the community if they transitioned to a use that will be compatible with the surrounding area.

A key component of the plan was the identification of major streets that will serve developing areas and improve the flow in the existing parts of town. An extensive network of proposed streets was presented in the plan. Several of the streets can support new growth and create alternate ways in and out of Evansville. Creating a means of access to Bryan Stock Trail to the west and Metro Road to the north was reflected in the plan. Alternate access routes 2, 5 and 6 outlined in this study are consistent with the 2005 Road Plan.

The Community Developing Plan and Road Plan address the growth of Evansville to the south and east between I-25 and Yellowstone Highway. As this area builds-out, it will contain a significant portion of Evansville's commercial and industrial businesses. The 2005 Plan recognizes the importance of good connectivity between the developed portion of the community and the extensive growth area to the southeast. Alternate nine (9) is also consistent with the plan and provides a secondary means of access out of the town core and connection to the future commercial and industrial sector.

One of the objectives of the 2005 plan was to identify a means to access the portions of Evansville north of the river that could be used for future residential expansion. A possible north-south road that bisects the decommissioned Texaco refinery property is identified in the plan. This route requires a 140' bridge over the river, estimated at $1,000,000, to connect the refinery road to property to the north under the control of Texaco (Chevron). The plan proposes a roadway alignment through the Chevron property to an east-west easement that represents an extension of the Geary Dome Road. This would offer an alternate way in and out of the town. A 4.3 mile road and 140' bridge will have to be built from the intersection of 2nd Street and Leavitt Street on the east side of Evansville to Cole Creek Road to establish this option, which is identified as alternative seven (7). Environmental issues involving the old refinery and containment/remediation area are a major consideration under this alternative. The total estimated cost of construction for this alternative, excluding any environmental work, is $5,540,800.

Alternate 8 – Eastside Underpass

The current entrances to Evansville all involve at grade crossings of the BNSF mainline. In addition to alternatives that involve connections to Bryan Stock Trail or bridges over the North Platte River, creating a grade separation crossing of the BNSF mainline would provide a dependable method to get into or out-of the community. In that the distance between the centerline of the BNSF mainline and Yellowstone Highway is less than 600 feet at any of the existing crossings, an overpass of the mainline is not possible without severely impacting the highway and all properties in the vicinity.

An underpass of the mainline requires less space than an overpass given the required clearance is less for trucks than trains, approaches can be shorter and retaining walls are frequently used. Alternate 8 involves an underpass at or east of Evans Street where the grades are the most favorable. Though the distance between the mainline and Yellowstone Highway is short, it is feasible to incorporate the highway service road into the underpass by starting the decent on the east/west portion of the service

road then make the 90° turn north toward the railroad after the necessary depth is reached. A 1,000 foot long underpass with a 0.25 mile connecting road to 2nd Street and Leavitt Street should be feasible. The depth to groundwater is a consideration in addition to conflicts with underground utilities and environmental issues on the old refinery site. The underpass construction cost is an estimated $10,000,000, plus there may be a cost for operations in that pumping ground or storm water and removing snow will be involved. The total estimated cost of constructing the underpass and connecting road is alternative is $10,264,000.

Alternate 9 – Texaco Star Business Park Crossing

While at grade crossings of a railroad mainline are undesirable, having a single train block all three crossings is a serious problem. Adding another at grade crossing more than 2,300 feet east of Evans Street will create a situation where four at grade crossings which cannot be blocked simultaneously by a single train will exist. Acquiring and clearing a property along the north side of the Yellowstone Highway and installing an at grade crossing is possible. The only property that is currently vacant is 4,200 feet east of Evans Street. Making the connection from 2nd Street and Leavitt Street to a crossing at that location will require the construction of a 1.0 mile road through the Texaco Star Business Park. A new at-grade crossing will cost an estimated $1,000,000. Addressing soil contamination on the previous refinery property will not be an issue with the road and crossing provided excavations not exceed a depth of six (6) feet which is the zone that is free of concrete, pipe and contaminated soil. In that Evansville is growing to the south and east, adding another crossing that far east has merit. Monitoring systems can be installed so emergency response crews will know which crossings are open. The initial or preliminary construction cost estimate for this alternative is $2,056,000.

Review of Alternatives

The nine different secondary access alternatives were rated on seventeen different criteria to determine which alternatives were the most feasible. As previously noted cost, isolation from railroad incidents and expediency were key issues for the oversight committee in determining the best alternatives. To provide a more in-depth assessment, these general considerations were split into seventeen different criteria:

1) Cost of Roadway
2) Cost of Structures
3) Distance from Railroad
4) Route Availability
5) Value as Emergency Route
6) Opportunity for Community Expansion
7) Support from WYDOT
8) Support from BNSF
9) Funding Alternatives
10) Jurisdictional Issues
11) Environmental Considerations
12) Floodplain Considerations
13) Reduced Traffic Congestion
14) Impact on Connecting Streets
15) O&M Costs
16) Timeline
17) Compatibility with 2005 Community Plan

The alternatives were assigned a score of 1 to 5 on criteria, where a rating of 1 indicated this was a limiting factor and 5 indicated this was a positive factor. The scores were then weighted to reflect the importance of cost, safety and expediency in making the selection. The actual values assigned by the consultant are presented in Appendix B. The cost assumptions for the roadways and structures are presented in Appendix C.

In brief, for an alternative to receive the maximum score in the rating scheme it must exhibit the following characteristics:

1) Low cost roadway, structures and on-going maintenance
2) Distant from a possible ruptured train car
3) Supports additional residential, commercial or industrial development
4) Favored by both WYDOT and BNSF
5) Multiple sources of funding
6) Few, if any environmental or floodplain issues
7) A significant amount of daily use
8) Limited problems for connecting streets or intersections
9) Can be constructed in the near future
10) Is compatible with the 2005 Community Land Use and Road Plan

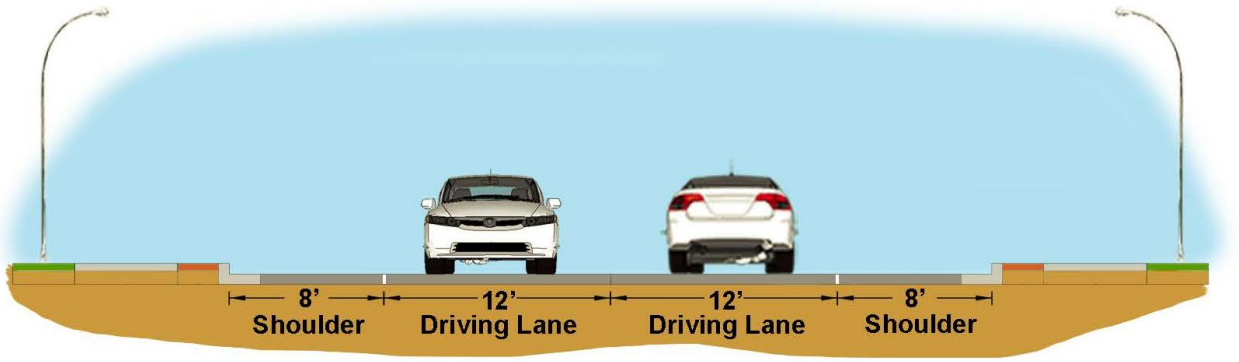
The oversight committee discussed each alternative and considered the values they had been assigned. The points that were raised and concerns voiced are summarized in the August 12, 2014, meeting notes in Appendix A. At the conclusion of the discussion, the Platte Park Road Bridge (Alternative 5), and Texaco Star Business Park Crossing (Alternate 9) were considered the most feasible alternatives. The consultant concurred with the conclusions arrived at by the committee.

Preferred Alternatives

Following the selection of the preferred alternatives, the consultant reviewed the preliminary assumptions and project components for the two preferred routes in greater detail, and prepared conceptual designs and more detailed estimates of probable costs for the two favored alternatives. In addition to the following summary, one page fact sheets on the two preferred alternatives are provided in Appendix C.

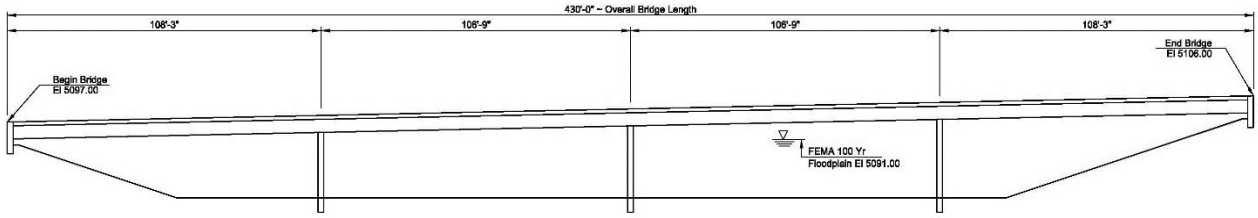
Platte Park Road Bridge (Alternate 5)

The Platte Park Road pavement width where it ends at 7th Street is 30 feet, which is the minimum width for a local street. The Platte Park Road Bridge will function as a collector street, and a 40 foot pavement width that will accommodate 2-12 foot travel lanes and 2-8 foot parking lanes is recommended. Typically five (5) foot sidewalks are considered adequate along local and collector streets. Platte Park Road is a primary connector to the park along the river and represents a leg of the North Evansville Trail, and a wider walk or side path should be constructed along the street. The newest section of Platte Park Road has a six (6) foot wide walk on the west side. It is recommended that a ten (10) foot walk be constructed on the west side of the street. The estimated cost to build a collector street with a ten (10) foot wide walk on one side is $200 per foot, which will result in a total cost for the 1,800 foot long section of road between 7th Street and the bridge of $360,000.



The bluff on the north side of the river is fourteen (14) feet higher than land to the east of Metro Road where the connecting road will terminate. Moving the north end of the bridge to the west and cutting down the bluff to the level of Metro Road will bring the north end of the bridge down to an elevation of 5,106 feet. The 100 year floodplain elevation at that section of the North Platte River is 5,091 feet. Providing six (6) feet of clearance during flood stage will place the south end of the bridge at 5,097 feet in elevation. Cutting down the bluff allows for the installation of a 430' long bridge with a deck at a grade of less than 3% and a minimal amount of fill in the floodplain. The roadway width on the bridge will match the street to the south. A ten (10) foot wide walk on the west side or a five (5) foot wide walk on each side can be accommodated on the 55 foot wide bridge. The revised construction cost estimate for the bridge is $3,853,000.

Bridge Elevation



Opinion of Cost for 430 Foot Four Span Bridge

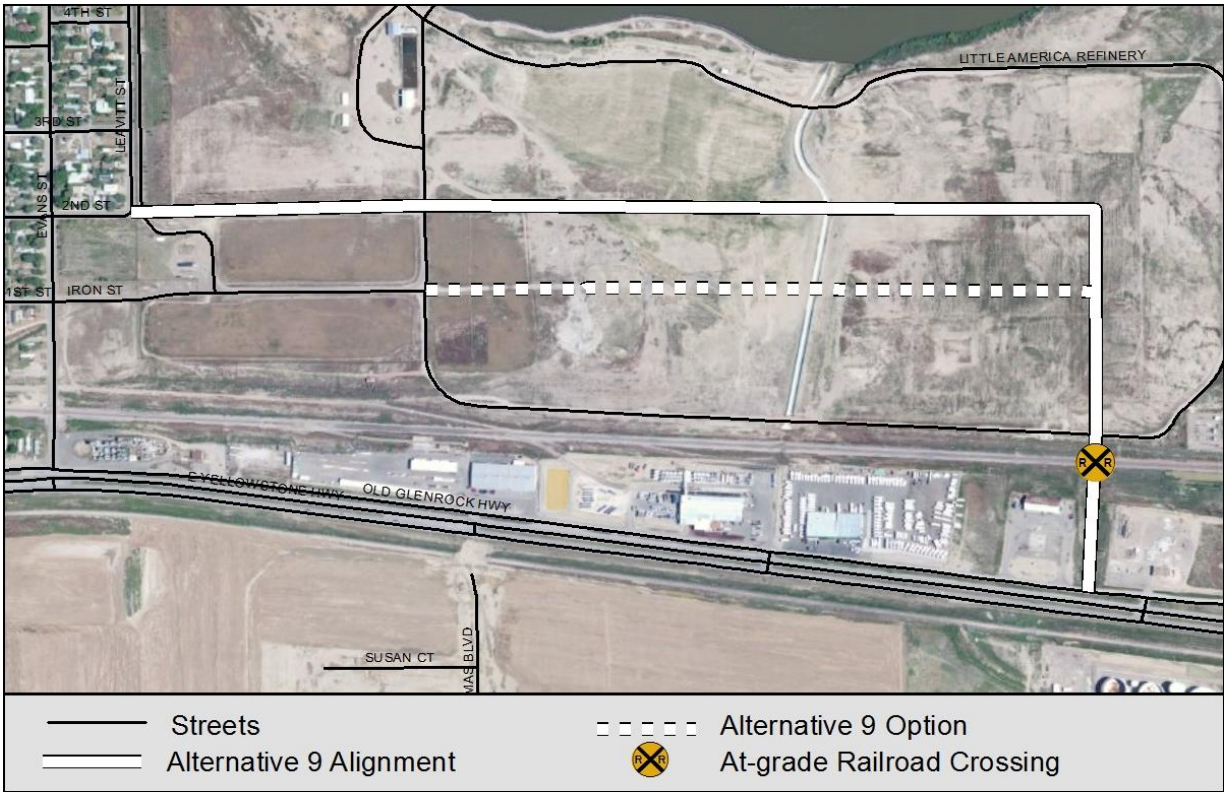
ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	Mobilization	1	LS	$300,000.00	$300,000.00
212.02100	Dry Excavation	1,000	CY	$25.00	$25,000.00
212.02200	Wet Excavation	1,000	CY	$50.00	$50,000.00
503.01400	Pedestrian Railing	860	FT	$200.00	$172,000.00
504.11253	Steel Piling HP 12 x 53	3,600	FT	$75.00	$270,000.00
507.01000	Reinforced Concrete Approach Slabs	250	SY	$250.00	$62,500.00
502.40054	Prestressed Precast Conc I-Girder 54 in	2,975	LF	$300.00	$892,500.00
511.06000	Machine Placed Riprap	725.0	CY	$80.00	$58,000.00
513.00010	Class A Concrete	800.0	CY	$750.00	$600,000.00
513.00020	Class B Concrete	450	CY	$700.00	$315,000.00
514.00020	Reinforcing Steel	50,000	LB	$1.50	$75,000.00
514.00030	Reinforcing Steel (Coated)	150,000	LB	$1.75	$262,500.00
				Estimated Construction Cost =	**$3,082,500.00**
				Contingency = **25%**	**$770,625.00**
				Total =	**$3,853,125.00**

The road from the north end of the bridge to Metro Road will be crossing City of Casper property. It is not known at this point how the City of Casper would like to have the road aligned and how they would like to see the intersection with Metro Road configured. There are no sidewalks on Metro Road and it seems unlikely there will be a significant amount of pedestrian traffic between Evansville and Metro Road. Nevertheless, sidewalks or a side path may be installed along Metro Road then south to the Knife River ponds at some point in the future, making it wise to plan for sidewalks along the new road north of the bridge. Using the same lane and walk configuration as the road south of bridge will result in an 840 foot roadway at $200 per foot for a total cost of $168,000. When combined with the estimated cost of the bridge, the total estimated cost for the Platte Park Road Bridge project is $4,381,000.

More precise cost estimates can be generated by moving to a preliminary design of the bridge and road to the south. Discussions will need to occur with the City of Casper Solid Waste and Engineering staff to identify the best route for the north connecting road and determine the type of intersection most appropriate for the connection to Metro Road.

Texaco Star Business Park Crossing (Alternate 9)

The Texaco Star Business Park Crossing alternative moved up the list of options following the committee's discussion. Concerns remained regarding the fact that an at grade crossing is a part of this option. The crossing will be over 2,000 feet east of Evans Street which off-sets that concern to a degree. However, given the prevailing winds, a train accident in town that involved the release of toxic gas could eliminate this crossing as a short term option.



The alignment of the route received some attention. It was recommended by the committee that the connection with existing Evansville Streets occur at Iron Street rather than 2nd Street to reduce the impact to residential areas and move the business park road closer to Yellowstone Highway.

The roadway configuration was not discussed by the committee. The consultant recommends that a 40 foot section with five (5) foot sidewalks be constructed. While the demand for on-street parking will be low along the principle road in the business park, truck traffic will be high and wide turns will be common. A thicker pavement section to support the truck traffic will be required resulting in a cost per lineal foot for the 5,500 foot long roadway of $260 for a total estimated cost of $1,430,000.

When the Texaco refinery property was reclaimed, all concrete, pipe and contaminated soil was removed to a depth of 6 feet. The proposed road will not need additional fill material, however, if the developer of the business park wishes to created berms to provide adequate cover for utilities rather than go through the necessary permitting, testing, and mitigation steps if they trench to a depth of greater than six (6) feet, the total cost of the road will increase.

An at grade railroad crossing costs will vary but a good estimate is $1,000,000. This will include the control systems, poles, crossbucks, flashers, gates, pedestrian improvements, and concrete planks. The image below is a recently upgraded crossing with these improvements in addition to a center barrier to keep motorists from driving around the gates when they are down. The image shows the signage and fencing recommended to guide pedestrians across the tracks when the gates are up. The planks and gates need to be long enough to span the travel lanes of the road. For a 40 foot wide primary road into a business park, the combined planks should equal 32 feet. At this cost, monitoring systems can be installed to make emergency response crews aware of which crossings were blocked.

Traffic generation levels for a 178 acre business park have not been computed for this study. The WYDOT District Engineer expressed concerns that assigning most of the business park traffic to the Evans Street / Yellowstone Highway intersection will negatively impact its functionality. A second means of access for the business park will extend the life of the Evans Street intersection as it is currently configured. After a master plan for the business park has been prepared, traffic projections for the two access roads can be developed.

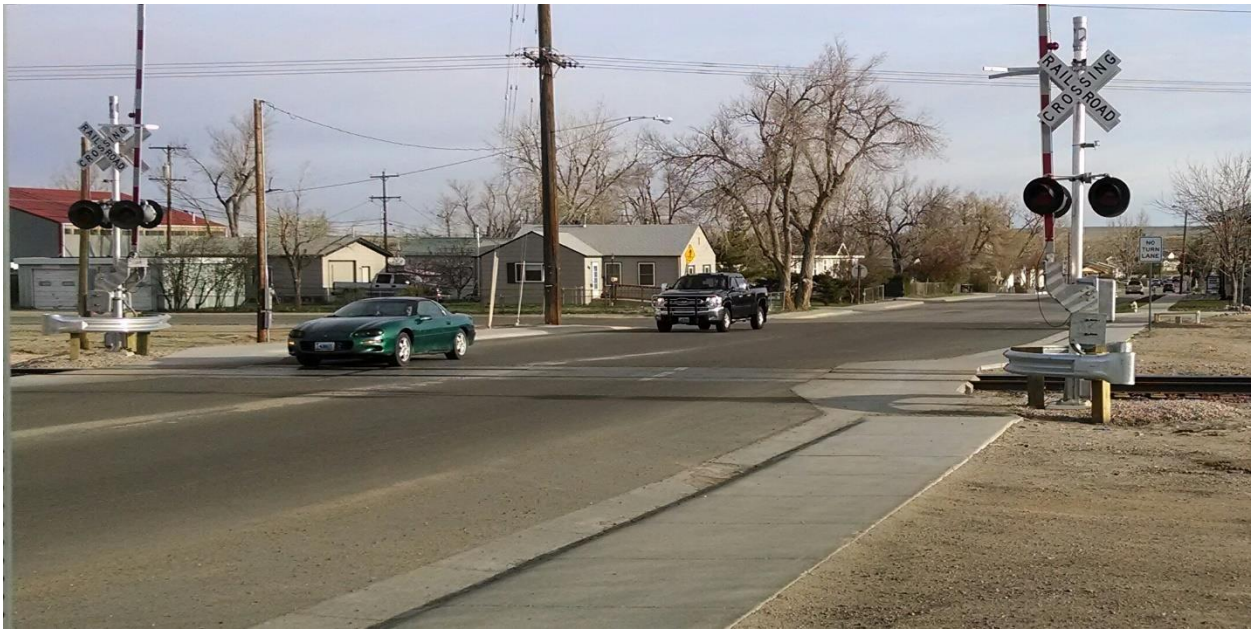
The committee noted that the proposed road and crossing will be of value to the developer of the business park and may be of value to WYDOT. It is likely the BNSF will not view the additional crossing favorably. Additional funding alternatives may exist since the new road and crossing may encourage business development that will create jobs, will improve safety for Evansville residents, improve emergency response times to the growing sections of Evansville to the south and east, and extend the life of existing highway intersections. Depending on the timeline for the development of the business park, the Texaco Star Business Park Crossing alternative could be the most expedient option.

The total estimated cost for the Texaco Star Business Park Crossing alternative, including the road and crossing is $2,430,000.

Improvements to Existing Crossings

The three existing crossings of the BNSF line in Evansville at Evans Street, Curtis Street and Western Avenue are occasionally blocked by moving or stationary trains. Though not the focus of the study, the consultant examined the three crossing to see if there are upgrades that can be made to enable more vehicles to cross per hour. If motorists are able to cross the tracks without reducing their speed, more vehicles can cross the tracks when trains are not present. The speed limit at the crossings is 20 mph. The town can raise the speed limit which will allow more cars to pass but may reduce the level of safety. Taking steps to maintain traffic flow without increasing speeds may be more appropriate.

Evans Street has 40 foot wide paving sections with curb and gutter to the north and south of the crossing. There is a 130 foot long section of the road at the crossing that is narrower and lacks curb and gutter. BNSF added 2 additional eight (8) foot long planks in the past few years, increasing the crossing itself to a width of 40 feet. The planks extend beyond the poles so the roadway has to be narrower at the crossing. The town can improve the approaches to the crossing to create a smoother transition to the narrower crossing which will encourage motorists to maintain their speed rather than slow down. The sight distance is excellent at Evans and motorists can see oncoming trains from a significant distance.



The work the town and BNSF have done in recent years at Curtis Street have left that intersection in excellent condition. Both motorists and pedestrians can comfortably cross the tracks at that location. Side streets and driveways in close proximity to the crossing can slow traffic when motorists are entering or exiting Curtis. At the present time, northbound motorists who are attempting to turn left onto Iron Street can cause traffic to back up over the tracks. Creating right turn lanes at Iron Street and prohibiting left turns during the busiest times of the day will keep the traffic flowing. Traffic counts will have to be taken and the intersection evaluated to determine what actions regarding turning movements would be most beneficial. There are driveways to the south of the crossing that are close enough to impact traffic flow at the crossing. Those driveways should be examined to determine if modifications will improve traffic flow but not compromise the owner's access to his property can be made. Sight distance at the crossing is excellent except for southbound motorists at Iron Street. The large tree to the north and west of that intersection can make it difficult for an individual driving a truck, bus or recreational vehicle to see an approaching eastbound train. Removing the lowest branches of the tree will improve this situation.

As is the case with Evans Street, gates were added to the Western Avenue crossing and the planks were extended in recent years. The pavement widths and tapers do not represent a hindrance to motorists, however there are driveways in the vicinity that should be examined to see if modifications are warranted to improve traffic flow and safety.

The prominent turning movement for northbound Western Avenue motorists is westbound on Iron Street. The opposing movement from Iron Street to Western Avenue is also high which suggests the stop sign at the southwest corner of that intersection should be removed, and a stop sign should be installed on the north side of Iron Street to the east of the intersection to honor the highest traffic movement and keep traffic flowing. Sight distance is not a problem at this crossing.

Floodplain and Environmental Considerations

The identified preferred alternative routes include the Platte Park Road Bridge (Alternative 5) and Texaco Star Business Park Crossing (Alternative 9). Flood plain and environmental considerations have been evaluated based upon available data and the anticipated scope and layout of the proposed alternatives. Based on these considerations, environmental and flood plain impacts may include:

Platte Park Road Bridge

1) Prepare a U.S. Clean Water Act Section 401 certification: Section 401 certifications addressing aquatic resource impacts including wetlands and water quality.
2) Submit a Section 404 Permit: Section 404 permit under the Clean Water Act from the U.S. Army Corps of Engineers. This permit regulates the discharge of dredged and fill materials into waterways. This is triggered by encroachment into the Platte River and its flood plain.
3) File a U.S. Army Corps of Engineers Section 408 Permit: Section 408 of the Rivers and Harbors Act of 1899 requires authorization for modifications to a river channel. This permit is triggered should the bridge design include piers or other river channel modifications.
4) A National Environmental Policy Act (NEPA) evaluation/documentation will be triggered if the project includes Federal funds or permitting.

Texaco Star Business Park Crossing

1) National Environmental Policy Act (NEPA) evaluation/documentation will be triggered if the project includes Federal funds or permitting.
2) An environmental response will need to be provided to the Wyoming Department of Environmental Quality (DEQ) per their rules and procedures should any contamination be uncovered from either the refinery or railroad operations.
3) An evaluation of stormwater discharge from the site may be required under U.S. Clean Water Act Section 401 permitting requirements.

Conclusion

Being totally dependent on three means of access to the Town of Evansville which all cross the same rail line has been identified as a serious concern by the Town Council. To address this problem, the Council commissioned a study to identify alternate or secondary routes that can provide access to the community, then evaluate the options to determine which are the most promising. The consultant selected worked with a committee of Evansville elected officials and managers to clarify the issues and select the preferred alternatives.

Nine (9) alternate access routes were identified. Four (4) of the routes involve the Knife River Corporation property to the west, two (2) involve City of Casper and State of Wyoming property to the north, and three (3) involve Chevron and Jona, Inc. property to the east. Both a railroad underpass and at grade crossing to the east of the original Town of Evansville were considered as were four (4) North Platte River bridge locations.

To evaluate the alternatives, 17 different criteria or considerations were developed by the consultant having to do with cost, safety, expediency, environment impacts, acceptability, impact on existing streets and consistency with the 2005 Community Development and Road Plan. To build upon a systematic assessment of the alternatives, most of the property owners or representatives who are impacted by one or more of the alternatives were interview. Based on the interviews, field observations, evaluation of the alternatives, and committee discussions, two (2) preferred alternatives were selected by the consultant. The top two (2) alternatives are:

1) Alternative 5 - Extend Platte Park Road on the west side of Evansville north to a new bridge over the North Platte River that will tie into Metro Road in the vicinity of City of Casper Solid Waste Facility. This alternative will involve the construction of a 430 foot bridge over the river and the building of 2,640 feet of roadway at an estimated cost of $4,381,000.
2) Alternative 9 - Extend Iron Street to the east a distance of approximately 4,200 feet through the Texaco Star Business Park property then south to Yellowstone Highway. This alternative will involve the installation of an at grade crossing of the BNSF rail line and will cost an estimated $2,430,000.

In addition to identifying and prioritizing new alternate routes in and out of the town, modification to the streets and traffic controls that will improve traffic flow at the crossings at Evans Street, Curtis Street and Western Avenue, were outlined.

Recommendations

To establish one or more secondary means of access to the Town of Evansville for a safe and dependable way into or out of the community will involve a number of steps and a significant level of funding. The initial steps involve discussing the preferred alternatives with the property owners/managers who have a role in the establishment of the new routes. In addition, more work is needed to refine the design elements and estimated costs. Finally, options for funding one or both of the top alternatives need to be explored.

To move the process of establishing alternate access routes forward, the consultant recommends that the Town of Evansville execute the following steps:

1) Enter into a formal agreement with Knife River Corporation for a conditional emergency access easement across their property in the vicinity of Bryan-Evansville Road.
2) Discuss the Platte Park Road Bridge alternative with the City of Casper to address roadway alignment options and the most workable means of connecting with Metro Road. Provisions for the establishment of necessary easements also needs to be addressed. After the preferred street and intersection configurations are established, a preliminary design of the roads and bridge should be prepared.
3) Review the Texaco Star Business Park Crossing alternative with Jona, Inc. personnel to determine their level of support for the project. Their vision for the park and timeline for the initial phases should be discussed as well as funding options.
4) Secure a property that can serve as the north/south connection between the extension of Iron Street in the Texaco Star Business Park and Yellowstone Highway.
5) Discuss the steps and time required to install an at grade crossing for the Texaco Star Business Park Crossing with BNSF and explore funding alternatives.
6) Select the top alternative and continue on to the design phase while exploring municipal, MPO, state, federal and private funding options.

Appendix A

Meeting Notes

NOTES FROM JUNE 16, 2014 KICK-OFF MEETING
Town of Evansville Community Center
9:00 a.m.

Present: Mayor Phil Hinds
Jennifer Fowler, Town Council
Shane Porter, Town Engineer
Scott Radden, Town Planner
Leo Malsom, Fire Chief
Tom Laughery, Police Chief
Dale Brown, Public Works Supervisor
Brian Boettcher, Public Works Supervisor
Janelle Underwood, Town Clerk
David Hough, KLJ
Tim Loveday, KLJ

Mayor Hinds open the meeting. Mr. Hough distributed a sign-up sheet and each member of the committee introduced him/herself. Mr. Hough stated the purpose of the meeting was to clarify the need for and objectives of the Secondary Access Feasibility Study and outlined how the study will be conducted. The following comments were made regarding the need for a study:

- There are approximately 6 trains per day that block one or more of the roads into Evansville. It is estimated that 2 crude oil unit trains per day from the Bishop Rail Hub will be passing through Evansville.
- An access to the north across the North Platte to Metro Road has been discussed. The public is not permitted to use the bridge to the Oregon Trails State Veterans Cemetery for access to anything other than the cemetery.
- A bridge over the river will allow the Evansville Fire Department to provide emergency response to the Casper Balefill, speedway and Events Center.
- Congestion on Curtis Street is high as certain times of the day.
- As the Texaco Star Business Park builds out it will impact traffic on Evans Street.
- A bridge over the river will create opportunities for more housing development, as noted in the 2005 Community Development and Road Plan.
- The isolation zone for spills or toxic releases from railroad cars is ½ mile.
- A railroad underpass will have to have over 13 feet of clearance to accommodate an emergency response ladder truck. One will eventually be needed by Evansville as development continues south of the Yellowstone Highway.
- The bridge between the old Texaco Refinery and Chevron operation may be adequate the general public use.

- There is an increasing need for police and fire protection south of the Yellowstone Highway.

Mr. Hough outlined the scope of work. He noted the KLJ will identify and evaluate up to 6 alternate access routes. He stated that they will be talking to the property owners or managers who represent the properties that will be impacted by the alternatives.

Mr. Hough noted that the scope of work called for interviews with committee members on an individual basis. He asked if as an alternative, the committee could get back together as a group to review the alternatives identified and help select the top 2 alternatives. That approach was accepted by the committee.

Mr. Radden indicated that one of the purposes of the study was to provide support and the justification for applications for funding. Mayor Hinds stated that seeking funds from the Wyoming Business Council and State Land and Investment Board held the most promise. Mr. Hough said they will format the report so that it can serve as an attachment to a grant application.

Mr. Hough suggested that the committee reconvene at the end of July to select the top alternatives. He then recommended that the final report be prepared and presented to the Town Council at a public meeting in September. The committee was comfortable with that approach.

The Mayor adjourned the meeting at 10:00 a.m.

NOTES FROM AUGUST 12 PROJECT COMMITTEE MEETING
Town of Evansville Community Center
9:00 a.m.

Present: Mayor Phil Hinds
Doug White, Town Council
Shane Porter, Town Engineer
Scott Radden, Town Planner
Leo Malsom, Fire Chief
Tom Laughery, Police Chief
Dale Brown, Public Works Supervisor
Brian Boettcher, Public Works Supervisor
Janelle Underwood, Town Clerk
Peggy Nading, Town Treasurer
Thomas McMurtry, KLJ
David Hough, KLJ

Mayor Hinds called the meeting to order. Mr. Hough passed around a sign-up sheet and introduced Mr. McMurtry with KLJ. Mr. Hough noted that the purpose of the meeting was to select the top 2 secondary access alternatives that KLJ will evaluate in greater depth. He made reference to the handout that had been distributed the previous week that included a description of each alternative, an overall map, and a matrix rating each alternative. Mr. Hough presented an overview of each of the alternatives. The comments made on each were:

SOUTH KNIFE RIVER – ALTERNATE 1

- Too close to the railroad tracks. An event that made the current crossings in Evansville unsafe may block this option as well.
- This alternate will receive a lot a day-to-day use

BRYAN –EVANSVILLE ROAD – ALTERNATE 2

- Clearly the least expensive.
- Can be complicated establishing this route and take some time.
- Will make a good emergency route. A legal agreement providing Evansville with access under certain circumstances should be pursued.

CROSSING THE KNIFE RIVER POND – ALTERNATE 3

- Interesting long term option.
- Will be very expensive if town had to construct the land bridge.

KNIFE RIVER NORTH PLATTE BRIDGE – ALTERNATE 4

- The Knife River property is in the Casper Growth Area and will be redeveloped under their purview.
- Area along the route will not support many homes do to the floodplain.
- May impact a wildlife/native recreational area that Knife River wishes to develop.
- Access to Metro Road will be less of a challenge than Alternate 5

PLATTE PARK ROAD BRIDGE – ALTERNATE 5

- Will only involve Evansville and City of Casper Property.
- Making the connection with Metro Road near the Balefill entrance will be challenging.
- Will provide access to the Events Center to assist with emergency response.
- Will provide good access to I-25 north and the Yellowstone Highway, and will get well used.
- Can open up an area for housing north of the river.
- Will be the most expensive of the viable options.
- Oregon Trail State Veterans Cemetery Bridge – Alternate 6
- Very unlikely that permission will be received from the Wyoming Military Department
- Route will cross State of Wyoming property
- Making the connection with Metro Road near the Balefill entrance will be challenging.

COLE CREEK ROAD CONNECTOR - ALTERNATE 7

- Presented as an option in the 2005 Community Development and Road Plan.
- Very long route.
- Will receive little use.
- Will serve as an evacuation route but will be of little value for emergency response.
- Involves bisecting active Chevron contamination mitigation area.

RAILROAD UNDERPASS – ALTERNATE 8

- Very expensive.
- Will have to be oversized to accommodate a fire department ladder truck.
- Within the railroad hazard zone and will be of little use if there was a spill or release of toxic material from a train car.

TEXACO STAR BUSINESS PARK CROSSING – ALTERNATE 9

- May be options for shared funding.
- Will serve the growing part of Evansville.
- Will relieve business park traffic on Evans Street.
- Can impact residential properties to the west.
- Can be accomplished quickly.

At the conclusion of the discussion, the committee decided Alternates 5 and 9 were the top choices. Mr. McMurtry indicated that KLJ will pull together more detailed cost estimates on these 2 alternatives and the list of environmental permitting steps. He stated that we will prepare a draft report and distribute it to the committee in the next few weeks, and reaffirmed that we will present the final report at a Council meeting in September.

Mayor Hinds adjourned the meeting at 10:00 a.m.

INTERVIEWS AND CONTACTS WITH IMPACTED PROPERTY OWNERS OR REPRESENTATIVES BY ALTERNATIVE

ALTERNATE 1

Tracts 15 & 16, Packing Plant Addition, 675 Hereford Lane
Josh Kalinowski, Agent
July 23, 2014

Discussion:

- The roads in the addition have been vacated and there is no easement on the south side along the tracks that could be used for a road.
- Alternate 1 road may be of little value to the owners.
- He stated he will check with the owners but did not call back.

ALTERNATES 1 - 4

Knife River Property
Dave Fertig, General Manager
June 24, 2014

Discussion:

- Eventually the resource will be depleted and the site will be available for reuse. MDU looks to the future on the use of their properties once the resource is depleted. Is good business and good for the community to redevelop property in a quality manner.
- Creating access along south side of property (Alternate 1) could be accomplished with relative ease.
- Existing road (Alternate 2) is the most logical connection. Will require modifications to the current operation. Can be used for emergency access immediately.
- Evansville could create an attractive gateway to the new part of town from Bryan Stock Trail once the Knife River site is decommissioned. Waste material from the dredging operation could be used to create a land bridge across the east pond for the entrance road (Alternate 3). Residential development could occur west of the pond.
- Area north of the east pond has potential for quality residential. Road across this area to a bridge to the northwest (Alternate 4) could serve that residential area.

ALTERNATE 5

Platte Park Bridge
Keith Tyler, Reshaw Development
June 26, 2014

Discussion:

- Bridge across the river is essential for community expansion.
- The Town needs to look for ways to increase the number of housing units and population.

ALTERNATE 5

Metropolitan Planning Organization (MPO)
Andrew Nelson, Supervisor
June 27, 2014

Discussion:

- Draft Long Range Transportation Plan (LRTP) recommends a railroad underpass on Curtis Street to improve access.
- A pre-NEPA study for a bridge over the North Platte River is in the Unified Planning Work Program (UPWP) as a near term project.
- Evansville is next in line to receive $1,000,000 in MPO Urban Systems funds for new construction projects.

ALTERNATE 6

Oregon Trail State Veterans Cemetery Road
Wyoming Military Department
Doug Shope, Deputy Director
July 22, 2014 and July 24, 2014

Discussion:

- Left messages regarding the study and the issues that come into play when considering an Oregon Trail State Veterans Cemetery Road access request (Alternate 6). Did not receive a call back.

ALTERNATES 7-9

Texaco Star Business Park
Dick Bratton, Manager
Jona, Inc.
June 26, 2014

Discussion:

- No master plan or committed tenants for the business park at this time.
- Extension of 2nd Street makes sense as primary access and utility corridor for the business park.
- Most of traffic will use Evans to get to Yellowstone Highway.
- Site only reclaimed to a depth of 6 feet. Full environmental assessment will be required for underpass (Alternate 8). Groundwater may be an issue.
- An at-grade crossing at the east end of the park (Alternate 9) will be of value.
- Extending a road north from the business park and installing a bridge over the river (Alternate 7) will impact the current Chevron operation and involved contaminated soil.
- It will be logical though far more expensive to have the railroad underpass (Alternate 8) continue under Yellowstone Highway and the Casper Rail Trail rather than connect with the north service road.

ALTERNATES 7-9

Chevron
Shawn Harshman, Site Manager
Trihydro Corporation
July 2, 2014

Discussion:

- Texaco refinery site only cleared to a depth of 6 feet
- Full environment assessment required for excavations of over 6 feet to protect construction workers.
- Evansville and Natrona County have to approve excavations per Use Control Agreement.

- Depth to groundwater ranges from 6 feet at the river to 30 feet in the southeast part of refinery property.
- A railroad underpass will not work in the southeast corner of the refinery property due to Sinclair pipelines.
- Can't allow access (Alternate 7) through the disposal site north of the river.

ALTERNATES 1, 8 & 9

WYDOT
Lowell Fleenor, District Engineer
Mark Williams, Traffic Engineer
June 26, 2014

Discussion:

- Not enough distance at any of the current entrances for a railroad overpass
- Intersection of Western and Yellowstone is operating at an acceptable level. Signalization is not warranted at this time.
- Will likely encounter groundwater problems with underpass (Alternate 8).
- Service road can be used for approach to underpass provided all property owners retain access.
- Intersection at Evans Street and Yellowstone Hwy. may be a problem if all future Texaco Star Business Park traffic uses that access point.
- $1,000,000 in Urban Systems funds is available per year for the combined entities that make up the MPO.

Appendix B

Rating of Alternatives

		Ratings								
Criteria	Weight	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8	Alt 9
Cost of Roadway	10	2	5	2	2	2	2	1	4	3
Cost of Structures	5	3	5	3	1	1	5	2	1	2
Distance from Railroad	5	1	3	4	5	5	5	5	1	1
Route Availability	10	4	3	3	3	4	1	1	2	4
Value as Emergency Route	5	1	5	4	2	2	2	1	1	4
Opportunity for Community Expansion	15	1	1	3	4	4	4	4	2	4
Support from WYDOT	5	4	5	5	5	5	5	5	2	4
Support from BNSF	2	2	5	5	5	5	5	5	4	1
Funding Alternatives	2	2	2	2	3	3	3	3	4	4
Jurisdictional Issues	10	4	2	2	4	2	1	4	2	3
Environmental Considerations	5	3	4	2	1	3	3	1	1	2
Floodplain Considerations	2	5	5	2	1	1	5	2	4	4
Relieve Traffic Congestion	5	4	5	4	3	3	1	1	4	4
Impact on Connecting Streets	5	3	2	2	2	2	2	3	2	3
O&M Costs	4	3	3	3	2	2	3	3	1	3
Timeline	5	3	2	1	1	3	1	1	1	4
Compatibility with Community Plan	2	2	5	2	2	4	4	5	4	3
	100									
Weighted Average		2.59	3.16	2.74	2.8	2.94	2.66	2.57	2.11	3.16
Ratings Scale 1-5 (poor to excellent)										

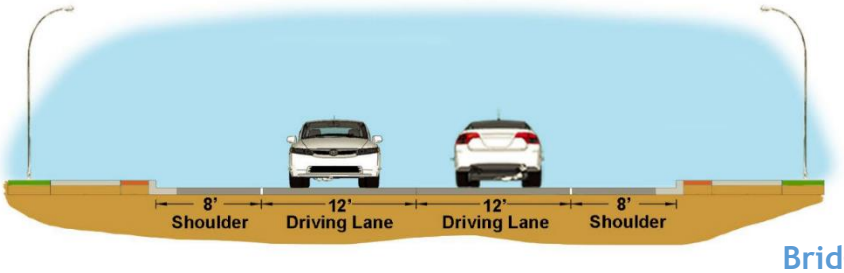
Appendix C

Preferred Alternative Fact Sheets

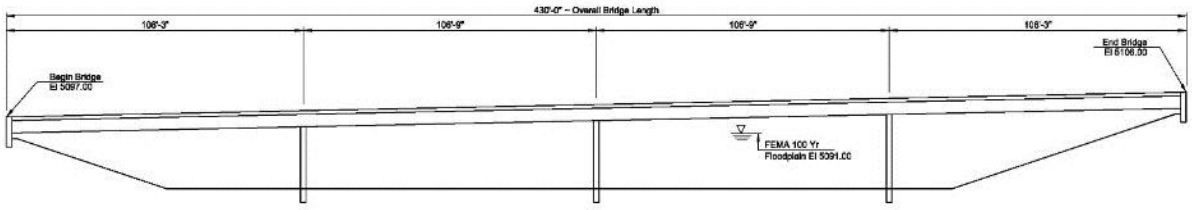
Town of Evansville Secondary Access Alternative
Platte Park Road Bridge

- 40’ pavement width for 2-12’ travel lanes, 8’ parking lanes and 5’ sidewalks.
- Alternative 10’ walk on west side will extend current wide walk to the river.
- The estimated cost for the 1,800’south and 840’ north (2,640’) approaches to the bridge is $528,000.
- Removing 14’ of the bluff on the north side of the river will shorten the bridge to a length of 430’ at a cost of $3,853,000
- Total project cost: $4,381,000

Street Cross-section



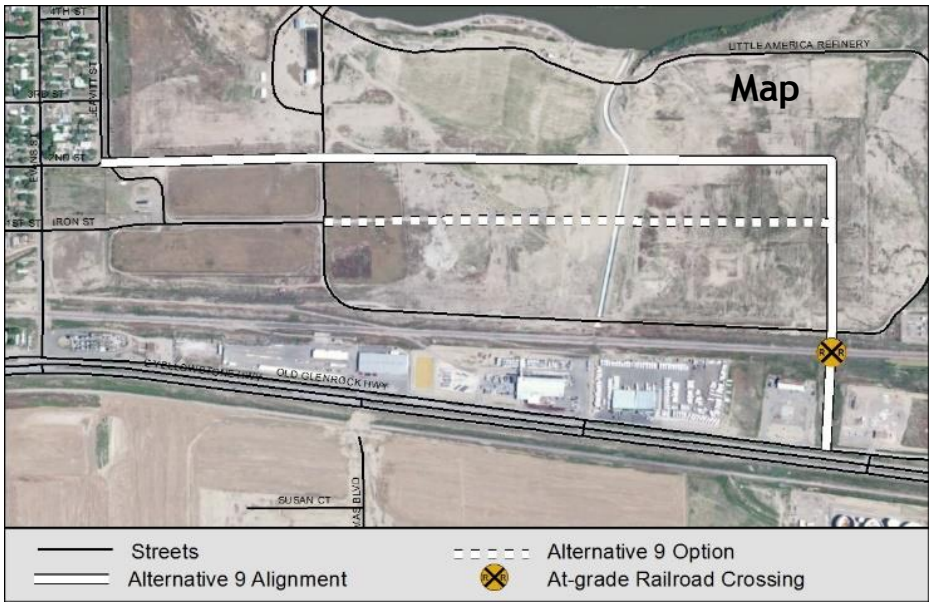
Bridge Elevation



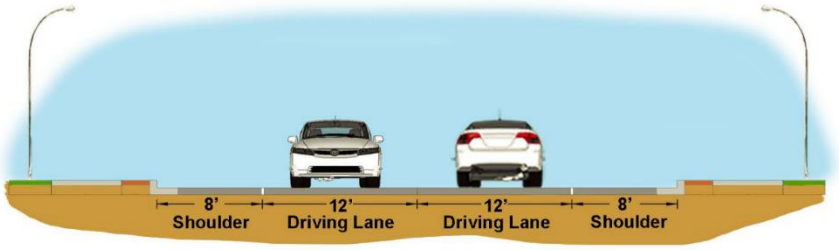
The Platte Park Road Bridge will provide a means of access to I-25 north and the Shoshoni Bypass. It will also open up a new area for housing north of the North Platte River, and is the best option from a safety standpoint. If the community had to be evacuated due to a railroad accident, the Platte Park Road Bridge is the best route. In addition to providing a good road connection, the bridge would create a pathway link from Reshaw Park to the future Long Lake Recreation Area the North Platte River Trail.

Town of Evansville Secondary Access Alternative
Texaco Star Business Park Crossing

- Requires construction of 1.1 mile of road designed for truck traffic at a cost of $1,430,000
- Railroad crossing would be more than 2,300’ east of Evans Street which would always leave at least one entrance to Evansville unobstructed by a train.
- Road will function as primary road for the Texaco Star Business Park
- The cost of a new at grade crossing is estimated at $1,000,000 for a total project cost of $2,430,000



Street Cross-section



In that Evansville is growing to the south and east, adding another crossing well to the east has value. Monitoring systems can be installed so emergency response crews will know which crossings are open. Addressing soil contamination on the previous refinery property will not be an issue provided the road and crossing excavations not exceed a depth of 6’.

The proposed road and crossing will help the business park and may be of value to WYDOT. The new road and crossing may encourage business development that will create jobs, will improve safety for Evansville residents, improve emergency response times to the growing sections of Evansville to the south and east, and extend the life of existing highway intersections. Depending on the timeline for the development of the business park and support from BNSF, the Texaco Star Business Park Crossing could be the most expedient option.


KLJ
KLJENG.COM